

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Eugene T. Michal, et al.

Application No.: 10/802,955

Filing Date: March 16, 2004

For: METHODS AND COMPOSITIONS
TO TREAT MYOCARDIAL CONDITIONS

Examiner: Ford, Allison M.

Art Unit: 1651

Commissioner for Patents
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If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 5/11, 2007


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			Examiner Name		Ford, Allison M.	
Sheet	1	of	8	Attorney Docket No.		005618.P4124X

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	1.	Allemann, E. et al. "Kinetics of Blood Component Adsorption on poly(D,L-lactic acid) Nanoparticles: Evidence of Complement C3 Component Involvement," <u>J. Biomed. Mater. Res.</u> 37(2):229-234 (Nov. 1997), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed , 1 page.	
	2.	Assmus, B. et al. "Transplantation of Progenitor Cells and Regeneration Enhancement in Acute Myocardial Infarction (TOPCARE-AMI)," <u>Circulation</u> (2002), 106:3009-3017, first page only (1 page).	
	3.	Capan, Y. et al. "Preparation and Characterization of Poly(D,L-lactide-co-glycolide) Microspheres for Controlled Release of Human Growth Hormone," <u>AAPS PharmSciTech.</u> 2003; 4(2): article 28. Downloaded from the Internet at: http://www.aapspharmscitech.org/view.asp?art=pt040228&pdf=yes (12 pages).	
	4.	Caplan, M.J. et al. "Dependence on pH of Polarized Sorting of Secreted Proteins," <u>Nature</u> 329 (October 15, 1987), p. 630.	
	5.	Desai, M. et al. "Polymer bound EDC (P-EDC): A convenient reagent for formation of an amide bond," <u>Tetrahedron Letters</u> 34(48):7685-7688 (Nov 1993), Abstract downloaded from the Internet at: http://www.sciencedirect.com , 1 page.	
	6.	Etzion, Sharon et al. "Influence of Embryonic Cardiomyocyte Transplantation on the Progression of Heart Failure in a Rat Model of Extensive Myocardial Infarction," <u>J. Mol. Cell Cardiol.</u> 33:1321-1330 (May 2001).	
	7.	Ferrara, N. "Role of Vascular Endothelial Growth Factor in the Regulation of Angiogenesis," <u>Kidney International</u> 56(3):794-814 (1999), Abstract downloaded from the Internet at: http://www.nature.com/ki/journal/v56/n3/abs/4490967a.html , 1 page.	
	8.	Fuchs, S. et al. "Catheter-Based Autologous Bone Marrow Myocardial Injection in No-Option Patients with Advanced Coronary Artery Disease," <u>J. Am. Coll. Cardiol.</u> 41(10):1721-1724 (2003).	
	9.	Gref, R. et al. "Biodegradable Long-Circulating Polymeric Nanospheres," <u>Science</u> 263(5153):1600-1603 (Mar 1994), Abstract downloaded from the Internet at: http://www.sciencemag.org/cgi/content/abstract/263/5153/1600 , 1 page.	

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				Examiner Name	Ford, Allison M.
Sheet	2	of	8	Attorney Docket No.	005618.P4124X

10.	Henry, R.R. et al. "Insulin Action and Glucose Metabolism in Nondiabetic Control and NIDDM Subjects. Comparison Using Human Skeletal Muscle Cell Cultures" <i>Diabetes</i> , 44(8):936-946 (1995), Abstract downloaded from the Internet at: http://diabetes.diabetesjournals.org/cgi/content/abstract/44/8/936 , 1 page.
11.	Holland, N.B. et al. "Biomimetic Engineering of Non-Adhesive glycocalyx-like Surfaces Using Oligosaccharide Surfactant Polymers," <i>Nature</i> 392:799-801 (Apr 1998), Abstract downloaded from the Internet at: http://www.nature.com , 1 page.
12.	Hovinen, J. et al. "Synthesis of 3'-functionalized oligonucleotides on a single solid support," <i>Tetrahedron Letters</i> 34(50):8169-8172 (Dec 1993), Abstract downloaded from the Internet at: http://www.sciencedirect.com , 1 page.
13.	Huynh, T.V. et al. "Constructing and Screening cDNA Libraries in λ gt10 and λ gt11," Chapter 2, in <i>DNA Cloning, Volume 1: A Practical Approach</i> , ed. by D.M. Glover, pp. 49-78.
14.	Indik, Z. et al. "Production of Recombinant Human Tropoelastin: Characterization and Demonstration of Immunologic and Chemotactic Activity," <i>Arch. Biochem. Biophys.</i> 280(1):80-86 (Jul 1990), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed , 1 page.
15.	Iskandrian, A.S. et al. "Nuclear Cardiac Imaging: Principles and Applications," second edition, F.A. Davis Co., Philadelphia (1996), cover page, title page and TOC (5 pages total).
16.	Isner, J.M. "Vascular Endothelial Growth Factor: Gene Therapy and Therapeutic Angiogenesis" <i>Am. J. Cardiol.</i> 1998 Nov 19; 82(10A): 63S-64S.
17.	Jonasson, P. et al. "Denatured states of human carbonic anhydrase II: an NMR study of hydrogen/deuterium exchange at tryptophan-indole-H _n sites," <i>FEBS Letters</i> 445 (1999), pp. 361-365.
18.	Kawasuji, M. et al. "Therapeutic Angiogenesis with Intramyocardial Administration of Basic Fibroblast Growth Factor," <i>Ann Thorac Surg</i> 69:1155-1161 (2000), Abstract downloaded from the Internet at: http://ats.ctsnetjournals.org/cgi/content/abstract/69/4/1155 , 2 pages.
19.	Kinart et al. "Electrochemical Studies of 2-hydroxy-3-(3,4-dimethyl-9-oxo-9H-thioxanthen-2-yloxy)N,N,N-trimethyl-1-propanium chloride," <i>J. Electroanal. Chem</i> 294 (1990), pp. 293-297.
20.	Kipshidze, N. et al. "Therapeutic Angiogenesis for Critical Limb Ischemia to Limit or Avoid Amputation," <i>The Journal of Invasive Cardiology</i> 11(1):25-28, (January 1999).

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21.	Klein, S. et al. "Fibroblast Growth Factors as Angiogenesis Factors: New Insights Into Their Mechanism of Action," in <u>Regulation of Angiogenesis</u> , I.D. Goldberg and E.M. Rosen (eds.), 1997; 79:159-192.
22.	Laboratory of Liposome Research. "Liposomes: General Properties," downloaded from the Internet on February 9, 2006 at: http://www.unizh.ch/onkwww/lipos.htm , 5 pages.
23.	Leor, J. et al. "Gene Transfer and Cell Transplant: An Experimental Approach to Repair a 'Broken Heart', <u>Cardiovascular Research</u> 35 (1997), pp. 431-441.
24.	Leroux, J.C. et al. "An Investigation on the Role of Plasma and Serum Opsonins on the Internalization of Biodegradable poly(D,L-lactic acid) Nanoparticles by Human Monocytes," <u>Life Sci.</u> 57(7):695-703 (1995), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed , 1 page.
25.	Lewin, Benjamin. "Repressor is Controlled by a Small Molecule Inducer", <u>Genes VII</u> , Oxford University Press, 7th ed., pp. 277-280, (2000).
26.	Li, W.W. et al. "Lessons to be Learned from Clinical Trials of Angiogenesis Modulators in Ischemic Diseases," Chapter 33, in Rubanyi, G. (ed). <u>Angiogenesis in Health & Disease: Basic Mechanisms and Clinical Applications</u> , Marcel Dekker, Inc. New York (2000).
27.	Li, Y.Y. et al. "Differential Expression of Tissue Inhibitors of Metalloproteinases in the Failing Human Heart," <u>Circulation</u> 98(17):1728-1734, (1998).
28.	Long, D.M. et al. "Self-Cleaving Catalytic RNA," <u>FASEB Journal</u> , 7:25-30, (1993).
29.	Lopez, J. J. et al. "Angiogenic Potential of Perivascularly Delivered aFGF in a Porcine Model of Chronic Myocardial Ischemia," <u>Am. J. Physiol.</u> 274 (<i>Heart Circ. Physiol.</i> 43):H930-H936, (1998).
30.	Lopez, J. J. et al. "VEGF Administration in Chronic Myocardial Ischemia in Pigs," <u>Cardiovasc Res.</u> 40(2):272-281 (1998), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed , 1 page.
31.	Lu, L. et al. "Biodegradable Polymer Scaffolds for Cartilage Tissue Engineering," in <u>Clinical Orthopaedics and Related Research</u> , Carl T. Brighton (ed.). No. 391S, pp. S251-270, (2001).

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32.	Mansour, S. et al. "Disruption of the proto-oncogene <i>int-2</i> in mouse embryo-derived stem cells: a general strategy for targeting mutations to non-selectable genes," <u>Nature</u> , 336:348-352, (1988).
33.	Martin, S.L. et al. "Total Synthesis and Expression in <i>Escherichia Coli</i> of a Gene Encoding Human Tropoelastin," <u>Gene</u> (1995), Abstract, 1 page.
34.	McDevitt, T. et al. " <i>In vitro</i> Generation of Differentiated Cardiac Myofibers on Micropatterned Laminin Surfaces," <u>J. Biomed Mater Res.</u> 60:472-479, (2002).
35.	Narmoneva, D.A. et al. "Self-assembling short oligopeptides and the promotion of angiogenesis," <u>Biomaterials</u> 26 (2005) 4837-4846.
36.	Nguyen, Kytai T. et al. "Photopolymerizable Hydrogels for Tissue Engineering Applications," <u>Biomaterials</u> 23:4307-4314, (2002).
37.	Nikolic, S.D. et al. "New Angiogenic Implant Therapy Improves Function of the Ischemic Left Ventricle," supplement to <u>Circulation. Abstracts From Scientific Sessions 2000</u> , 102(18):II-689, Abstract 3331 (Oct. 2000).
38.	Nitinol Technical Information, "NiTi Smart Sheets," downloaded from the Internet on December 10, 2002 at: http://www.sma-inc.com/information.html , 1 page.
39.	Ohyanagi, H. et al. "Kinetic Studies of Oxygen and Carbon Dioxide Transport into or from Perfluorochemical Particles," <u>Proc. ISAO vol. 1 (Artificial Organs vol. 2 (Suppl.))</u> , pp. 90-92 (1977).
40.	Ozbas, B. et al. "Salt-Triggered Peptide Folding and Consequent Self-Assembly into Hydrogels with Tunable Modulus," <u>Macromolecules</u> 37(19):7331-7337, (2004).
41.	Ozbas-Turan, Suna. "Controlled Release of Interleukin-2 from Chitosan Microspheres," <u>Journal of Pharmaceutical Sciences</u> 91(5):1245-1251, (May 2002).
42.	Palmiter R. et al. "Germ-Line Transformation of Mice," <u>Ann. Rev. Genet.</u> 20:465-499, (1986).
43.	Patrick, C.R. "Mixing and Solution Properties of Organofluorine Compounds," Chapter 10, in Preparation, Properties and Industrial Applications of Organofluorine Compounds," R.E. Banks (ed.), 1st edition, pp. 323-342, Ellis-Horwood Ltd., Chichester:England (1982).

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	44.	PCT Invitation to Pay Additional Fees for International Appln No. PCT/US03/18360, mailed 4 November 2003 (3 pgs).	
	45.	PCT International Search Report for International Appln No. PCT/US03/18360, mailed 28 January 2004 (7 pgs).	
	46.	PCT International Search Report for International Appln. No. PCT/US03/30464, mailed 9 February 2004 (5 pages).	
	47.	PCT International Preliminary Report on Patentability for International Appln. No. PCT/US2004/011356, mailed 3 November 2005 (6 pgs).	
	48.	PCT International Search Report and Written Opinion for International Appln No. PCT/US2005/045627, mailed 13 October 2006 (15 pgs).	
	49.	Peattie, R.A. et al. "Stimulation of In Vivo Angiogenesis by Cytokine-Loaded Hyaluronic Acid Hydrogel Implants," <u>Biomaterials</u> (June 2004) 25(14), Abstract downloaded from: www.sciencedirect.com, 2 pages.	
	50.	Penta, K. et al. "Dell Induces Integrin Signaling and Angiogenesis by Ligation of $\alpha V\beta 3$," <u>J. Biolog. Chem.</u> 274(16):11101-11109, (April 1999).	
	51.	Perin, E.C. et al. "Transendocardial, Autologous Bone Marrow Cell Transplantation for Severe, Chronic, Ischemic Heart Failure," <u>Circulation</u> (2003), 1 page.	
	52.	Pouzet, B. et al. "Is Skeletal Myoblast Transplantation Clinically Relevant in the Era of Angiotensin-Converting Enzyme Inhibitors?" <u>Circulation</u> 104[suppl I]:I-223 - I-228, (Sep 2001).	
	53.	Prather et al. "Nuclear Transplantation in Early Pig Embryos," <u>Biol. Reprod.</u> 41:414-418, (1989).	
	54.	ProSci Incorporated, "ILPIP (CT) Peptide," 1 page.	
	55.	Quelleg, P. et al. "Protein Encapsulation Within Polyethylene Glycol-coated Nanospheres. I. Physicochemical Characterization," <u>J. Biomed. Mater. Res.</u> 42(1), (1998) Abstract, 1 page.	

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56.	Ramirez-Solis, R. et al. "Gene Targeting in Embryonic Stem Cells," <u>Methods in Enzymology</u> , 225:855-878, (1993).	
57.	Rowley, J. et al. "Alginate Hydrogels as Synthetic Extracellular Matrix Materials," <u>Biomaterials</u> 20:45-53, (1999).	
58.	Sbaa-Ketata, E. et al. "Hyaluronan-Derived Oligosaccharides Enhance SDF-1-Dependent Chemotactic Effect on Peripheral Blood Hematopoietic CD34 ⁺ Cells," <u>Stem Cells</u> (2002), 20(6):585-587, "Letter to the Editor" downloaded from the Internet at: http://stemcells.alphamedpress.org/cgi/content/full/20/6/585 , 5 pages.	
59.	Segura, T. et al. "[216c]-DNA Delivery From Hyaluronic Acid/Collagen Hydrogels," AIChE Technical Program Paper Detail, <u>American Institute of Chemical Engineers</u> (ALCHE Annual Meeting 2003), Abstract downloaded from the Internet at: http://www.aiche.org/coferences/techprogram/paperdetail.asp?PaperID=1465&DSN=annual , 2 pages.	
60.	Segura, T. et al. "Crosslinked Hyaluronic Acid Hydrogels: A Strategy to Functionalize and Pattern," <u>Biomaterials</u> 26:359-371, (2005).	
61.	Segura, T. et al. "Substrate-Mediated DNA Delivery: Role of the Cationic Polymer Structure and Extent of Modification," <u>Journal of Controlled Release</u> 93:69-84, (2003).	
62.	Segura, T. et al. "Surface-Tethered DNA Complexes for Enhanced Gene Delivery," <u>Bioconjugate Chem</u> 13(3):621-629, (2002).	
63.	Shibasaki, F. et al. "Suppression of Signalling Through Transcription Factor NF-AT by Interactions Between Calcineurin and Bcl-2," <u>Nature</u> (1997) 386(6626), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?CMD=Text&DB=pubmed , 1 page.	
64.	Shin, H. et al. "In Vivo Bone & Soft Tissue Response to Injectable, Biodegradable oligo(poly(ethylene glycol) fumerate) Hydrogels," <u>Biomaterials</u> 24:3201-3211, (March 2003).	
65.	Shu, et al. "Disulfide-crosslinked hyaluronan-gelatin hydrogel films: a covalent mimic of the extracellular matrix for in vitro cell growth," <u>Biomaterials</u> (Sep 2003) 24(21), Abstract downloaded from the Internet at: http://www.sciencedirect.com , 1 page.	
66.	Simons, M. et al. "Clinical Trials in Coronary Angiogenesis: Issues, Problems, Consensus - An Expert Panel Summary," <u>Circulation</u> 102:e73-e86, (Sep 2000), pp. 1-14.	

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			Application Number	10/802,955	
			Filing Date	March 16, 2004	
			First Named Inventor:	Eugene T. Michal	
			Art Unit	1651	
			Examiner Name	Ford, Allison M.	
Sheet	7	of	8	Attorney Docket No.	005618.P4124X

67.	Spenlehauer, G. et al. "In vitro and in vivo Degradation of poly (D,L lactide/glycolide) Type Microspheres Made by Solvent Evaporation Method," <u>Biomaterials</u> 10:557-563, (Oct 1989).
68.	Spinale, Francis G. "Matrix Metalloproteinases - Regulation and Dysregulation in the Failing Heart," <u>Circ. Res.</u> 90:520-530, (2002).
69.	Springer, M. et al. "Angiogenesis Monitored by Perfusion with a Space-Filling Microbead Suspension," <u>Mol. Ther.</u> (2000) 1(1):82-87, Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed , 1 page.
70.	Storm, G. et al. "Surface Modification of Nanoparticles to Oppose Uptake by the Mononuclear Phagocyte System," <u>Advanced Drug Delivery Reviews</u> (Oct 1995), 17(1):31-48, Abstract downloaded from the Internet at: http://www.sciencedirect.com , 1 page.
71.	Strauer, B. et al. "Repair of Infarcted Myocardium by Autologous Intracoronary Mononuclear Bone Marrow Cell Transplantation in Humans," <u>Circulation</u> 106:1913-1918, (2002).
72.	Tybulewicz, V. et al. "Neonatal lethality and lymphopenia in mice with a homozygous disruption of the <i>c-abl</i> proto-oncogene," <u>Cell</u> (June 1991), 65(7):1153-1163, Abstract downloaded from the Internet at: http://www.sciencedirect.com , 2 pages.
73.	Unger, E.F. et al. "Effects of a Single Intracoronary Injection of Basic Fibroblast Growth Factor in Stable angina Pectoris" <u>Am. J. Cardiol</u> 85(12):1414-1419 (June 2000), Abstract downloaded from the Internet at: http://www.sciencedirect.com , 2 pages.
74.	van der Giessen, W.J. et al. "Marked Inflammatory Sequelae to Implantation of Biodegradable and Nonbiodegradable Polymers in Porcine Coronary Arteries," <u>Circulation</u> 94(7):1690-1697 (Oct 1996).
75.	van Luyn, M.J.A. et al. "Cardiac Tissue Engineering: Characteristics of In Unison Contracting Two- and Three-Dimensional Neonatal Rat Ventricle Cell (Co)-Cultures," <u>Biomaterials</u> 23:4793-4801, (2002).
76.	Vercruysse, K.P. et al. "Synthesis and in Vitro Degradation of New Polyvalent Hydrazide Cross-Linked Hydrogels of Hyaluronic Acid," <u>Bioconjugate Chem</u> 8(5):686-694 (1997), Abstract downloaded from the Internet at: http://pubs.acs.org/cgi-bin/abstract.cgi/bcches/1997/8/i05/abs/bc9701095.html , 1 page.
77.	Visscher, G.E. et al. "Tissue Response to Biodegradable Injectable Microcapsules," <u>Journal of Biomaterials Applications</u> 2 (July 1987), pp. 118-119.

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Sheet	8	of	8	Attorney Docket No.	005618.P4124X

	78.	Vlodavsky, I. et al. "Extracellular Matrix-resident Basic Fibroblast Growth Factor: Implication for the Control of Angiogenesis," <u>J. Cell Biochem</u> , 45(2):167-176 (Feb 1991), Abstract downloaded from the Internet at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed , 1 page.	
	79.	Wasielewski, S. "Ischämische Erkrankungen, Gefäßneubildung anregen" <u>Deutsche Apotheker Zeitung</u> (January 2000), 140(3):232-233, Stuttgart (DE).	
	80.	Witzenbichler, B., et al. "Vascular Endothelial Growth Factor-C (VEGF-C/VEGF-2) Promotes Angiogenesis in the Setting of Tissue Ischemia" <u>AM Pathol</u> . 153(2):381-394, (Aug 1998).	
	81.	Zervas, L. et al. "On Cysteine and Cystine Peptides. II. S-Acylcysteines in Peptide Synthesis," <u>J. Am. Chem. Soc.</u> 85(9):1337-1341, (May 1963).	
	82.	Zheng, W. et al. "Mechanisms of coronary angiogenesis in response to stretch: role of VEGF and TGF-beta," <u>Am J Physiol Heart Circ Physiol</u> . 280(2):H909-H917, (February 2001).	
	83.	Zimmermann, W. et al. "Engineered Heart Tissue for Regeneration of Diseased Hearts," <u>Biomaterials</u> 25:1639-1647, (2004).	

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